

**Amendments to the Claims:-**

This listing of claims will replace all prior versions, and listings, of claims in the application:-

**Listing of Claims:-**

Claims 1-23 (Withdrawn)

Claim 24 (Currently amended) A method of treatment of human malignancies, comprising administering modified recombinant human arginase I to a patient, said modification resulting in an extended half-life of said human arginase I for at least 3 days.

Claim 25 (Canceled) ~~A method of treatment of human malignancies, comprising administering the pharmaceutical composition of claim 15.~~

Claim 26 (Currently amended) The method of treatment according to claim 25 24, wherein said human malignancies are selected from the group consisting of: liver tumor, breast cancer, and rectal cancer.

Claim 27 (Currently amended) ~~The~~ A method of treatment according to Claim 24 of human malignancies comprising administering recombinant human wherein said arginase has an extended half-life of at least 6 days in a human having a malignancy to a patient.

Claim 28 (Currently amended) A method of treatment ~~of human malignancies of a human in a~~ patient comprising administering a pharmaceutical composition that reduces the physiological arginine level in said patient to below 10  $\mu$ M for at least 3 days.

Claim 29 (Currently amended) The method of Claim 28, wherein said ~~pharmaceutical composition comprises human arginase and wherein the composition is substantially~~ method is performed in the absence free of a protein degradation inhibitor.

Claim 30 (Canceled) ~~A method of treatment of human malignancies, comprising: administering arginase to a human patient; and subsequently monitoring platelet count; wherein an exogenously applied nitric oxide producer is not administered unless the levels of platelet count are below  $50,000 \times 10^9$ .~~

Claim 31 (Canceled) ~~A method of treatment of human malignancies, comprising: administering arginase to a human patient; and subsequently monitoring prothrombin time; wherein an exogenously applied nitric oxide producer is not administered unless a prothrombin time of 2X normal levels is not attained.~~

Claim 32 (Currently amended) The A method of treatment according to Claim 29 wherein said composition of human malignancies, comprises: administering a composition comprising modified recombinant human arginase I, wherein said arginase is the sole active ingredient in said composition, whereby the arginine level in said patient is reduced to below 10  $\mu$ M for said modification resulting in an extended half-life of said human arginase I of at least 6 days.

Claim 33 (Canceled) ~~A method of treatment of human malignancies comprising administering a recombinant pegylated human arginase I having an in vitro plasma half life of at least approximately 3 days to a human having a malignancy.~~

Claim 34 (Canceled) ~~A method of treatment of human malignancies comprising administering human arginase as the sole active agent to a human having a malignancy wherein arginine levels in said human are maintained at or below 10  $\mu$ M for at least 3 days.~~

Claim 35 (New) The method of treatment according to Claim 24, wherein said human arginase I is modified by pegylation.

Claim 36 (New) The method of treatment according to Claim 24, wherein said method is performed in the absence of protein degradation inhibitor.

Claim 38 (New) The method of treatment according to claim 28, wherein said human malignancies are selected from the group consisting of: liver tumor, breast cancer, and rectal cancer.